



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/521,845

07/01/2005

Robert C Livingston

56545-010204

1269

35893

7590

10/16/2008

GREENBERG TRAURIG, LLP

ONE INTERNATIONAL PLACE, 20th FL.

ATTN: PATENT ADMINISTRATOR

BOSTON, MA 02110

EXAMINER

FORTUNA, ANA M

ART UNIT

PAPER NUMBER

1797

MAIL DATE

DELIVERY MODE

10/16/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/521,845

Applicant(s)

LIVINGSTON, ROBERT C

Examiner

Ana M. Fortuna

Art Unit

1797

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 June 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Claim Rejections - 35 USC § 102

1. This rejection is a copy of the first Office action now including claims 18-20 (added).
2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-20 are rejected under 35 U.S.C. 102(b) as being anticipated by or alternatively rejected under U.S.C. 103 as being obvious over Pisani (US 4,990,260). Pisani teaches a system a system including all the elements of claim 1 (Figures 1-2, elements 20, 22, 26, 52, 54, 36, 72, 70). Patent '260 does further teaches the use of UV radiation as conventional in the art for water disinfection (column 3, last paragraph bridging column 4). The mixed bed deionizer is connected to the UV unit 36 is connected to UV unit, and mixed bed (60) is also fluidly connected with the UV unit; the UV unit is alternatively connected to another micron filter (72) before discharge from the system; Therefore, the cartridge is operatively connected to the deionizer, because it supplies fluid to the end use point, which water can also be treated by the mixed bed before discharge. It would have been further obvious to one skilled in the art at the time this invention was made to place the cartridge (72) after the ion exchange (60), e.g. to remove any final residue from the water. The skilled in the art at the time this invention was made have the knowledge to predict the final results when these two final units are

changed around the system in a membrane water posttreatment. Using 5 micron filters is further disclosed in the patent (column 6, lines 10-column 7 line 52). Using carbon filter in the pretreatment is disclosed in the patent, providing the carbon in a powder or granular form would have been obvious to the skilled artisan, e.g. to provide a large carbon surface area, and increase the amount of contaminants removed as to claim 4, and 5 adding additional carbon filters to the system is considered cumulative, duplicating the separation step in the system. As to claim 6, dissolved and undissolved contaminants are expected to be remove from the RO membrane, separation of those components are inherent based on the membrane molecular weight cutoff. The operating pressure conditions for the RO are known to the skilled artisan. the pressure operation is depending of whether the membrane is a tight or a loose reverse osmosis, and/or on the degree of separation required. Valves are not shown in the system but considered and inherent part or an obvious arrangement, since valves are provided to avoid backflow in the system, backwash the system etc. The wave length is disclosed in the patent (column 8, first paragraph). As to claim 15, bypassing the ion exchange to minimize process costs when the fluid to be treated does not required that particular treatment would have been obvious to the skilled artisan. Regarding claims 16-17, using conventional water treatment modules of the art, and recycling reject water back to the membrane module would have been obvious to one skilled in this art at the time his invention was made, e.g. to obtain higher recovery.

As to claim 18, positioning the micron filter in contact with the water intake, e.g to remove larger solid particles from the feed water would have been obvious to one

skilled in the art at the time this invention was made. As to claim 19, using a storage container in a system is depending on whether the system is intended to be use in a continuous or bath process, and the arrangement is considered an obvious design choice. As to claim 20, compacting the system to make portable doe snot change the system structure.

In re Gazda, 42 CCPA 770; 219 F2d 449. a limitation of the claimed combination which presented no novel or unexpected result over a similar feature used in the prior art references, and solved not stated problem, was held to be an obvious matter of design choice within the skilled in the art.

Response to Arguments

3. Applicant's arguments filed 6/27/08 have been fully considered but they are not persuasive. The claims in this application are directed to a "system", and not to a process. Claim 1 is amended to limit the intake to receive "city feed water". The system in patent 4,990,260 is a conduit for receiving the water to be treated. The inlet conduit in the patent and in the current system can receive any type of water or fluid to be treated by the system. Patent '260 teaches the pretreatment as known in the art (See Fig. 1), which is connected to city water (column 6, lines 10-14).

If the prior art structure is capable of performing the intended use, then it meets the claim. Furthermore, alternating cartridge filter with ion exchange filter or activated carbon filters in the pretreatment stage would have been obvious to the skilled artisan because all of ten perform functions or treatment stages that can be performed in any order. Performing the micron filtration before ion exchange is known in the art to remove

solid particles before further process as evidenced in patent 6,267,891 of record.

Added claims 18-20 are added in the rejection above.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ana M. Fortuna whose telephone number is (571) 272-1141. The examiner can normally be reached on 9:30-6:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David R. Sample can be reached on (571) 272-1376. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ana M Fortuna
Primary Examiner
Art Unit 1797

/Ana M Fortuna/
Primary Examiner, Art Unit 1797